

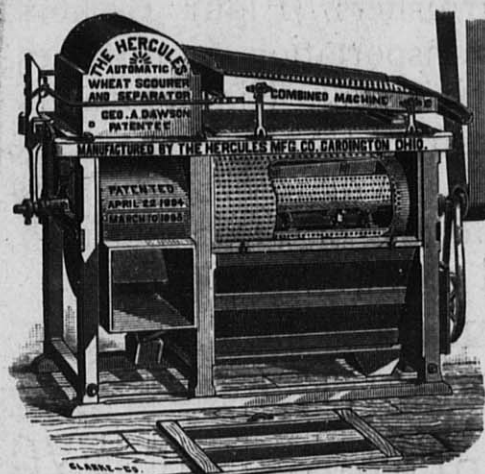


Published by
E. HARRIS & S. CAWKER { Vol. 21, No. 3.

MILWAUKEE, JULY, 1886.

TERMS: { \$1.00 a Year in Advance
Single Copies, 10 Cents.

Do You Want Clean Wheat?



THE Hercules Automatic Wheat Scourer AND Separator

Warranted to improve the **COLOR** and **VALUE** of flour in any mill. Anti-Frictional, Light Running and the only **AUTOMATIC WHEAT SCOURER** ever invented. Adjusts itself while in motion to the volume of wheat fed to it and requires no attention but oiling. Awarded **GOLD MEDAL** and highest honors at the late **WORLD'S FAIR, NEW ORLEANS**. Machines sent on 60 days trial and satisfaction guaranteed or no pay. Write for Circulars, Testimonials and Samples of Cleaned Wheat and Scourings.

THE HERCULES MFG. CO., Cardington, Ohio.

It Has Increased Our Trade.

THE HERCULES MANUFACTURING CO., Cardington, Ohio.

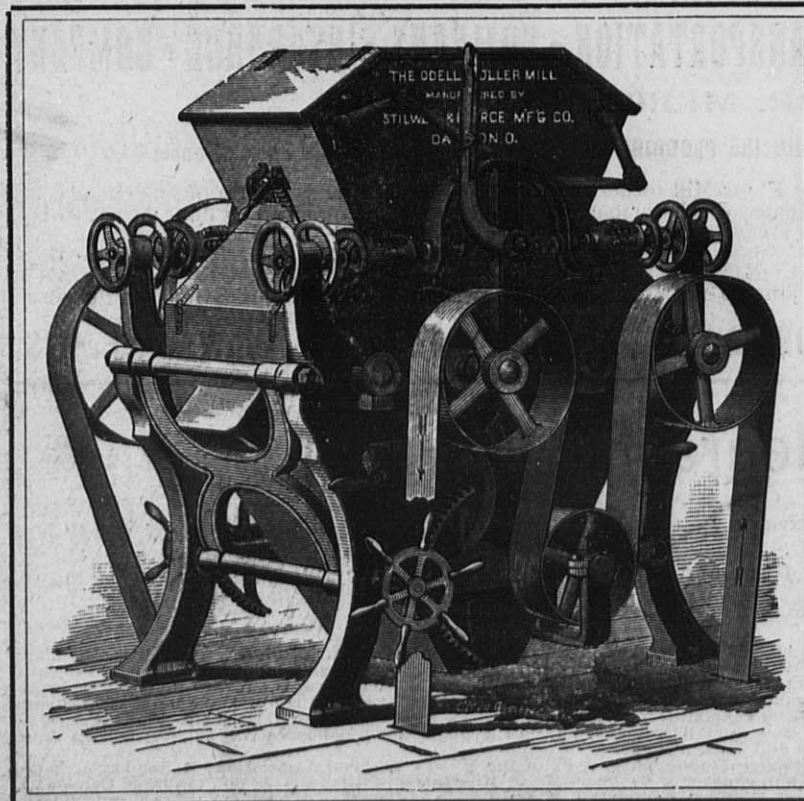
Gentlemen:—We like the "Hercules" machine very much indeed. It has increased our trade, and we will buy another for our other mill in the Spring. It certainly is the best Scourer we know of.

[Mention this Paper when you write.]

Yours Respectfully,

SCHREURS BROS.,
PROPRIETORS OF YOUNG AMERICA ROLLER MILLS,
Muscatine, Iowa, December 9th, 1885.

ODELL'S ROLLER MILL SYSTEM



Is now in successful operation in a large number of mills, both large and small, on hard and soft wheat, and is meeting with unparalleled success. All the mills now running on this system are doing very fine and close work, and we are in receipt of the most flattering letters from millers. References and letters of introduction to parties using the Odell Roller and System, will be furnished on application to all who desire to investigate.

❖Odell's Roller Mill❖

Invented and Patented by U. H. ODELL, the builder of several of the largest and best Gradual Reduction Flour Mills in the country.

AN ESTABLISHED SUCCESS!

We invite particular attention to the following

POINTS OF SUPERIORITY

possessed by the Odell Roller Mill over all competitors, all of which are broadly covered by patents, and cannot be used on any other machine.

1. It is driven entirely with belts, which are so arranged as to be equivalent to giving each of the four rolls a separate driving-belt from the power shaft, thus obtaining a **positive differential motion** which cannot be had with short belts.

2. It is the only Roller Mill in market which can instantly be stopped without throwing off the driving-belt, or that has adequate tightener devices for taking up the stretch of the driving-belts.

3. It is the only Roller Mill in which one movement of a hand lever spreads the rolls apart and shuts off the feed at the same time. The reverse movement of this lever brings the rolls back again exactly into working position and at the same time turns on the feed.

4. It is the only Roller Mill in which the movable roll-bearings may be adjusted to and from the stationary roll-bearings without disturbing the tension-spring.

5. Our Corrugation is a decided advance over all others. It produces a more even granulation, more middlings of uniform shape and size, and cleans the bran better.

WE USE NONE BUT THE BEST ANSONIA ROLLS.

Our Corrugation differs from all others, and produces less Break Flour and Middlings of Better Quality.

Mill owners adopting our Roller Mills will have the benefit of Mr. Odell's advice, and long experience in arranging mills. Can furnish machines on short notice. For further information, apply in person or by letter to the sole manufacturers,

STILWELL & BIERCE MANUFACTURING COMPANY, DAYTON, OHIO, U. S. A.

Agents for DuFour's Bolting Cloth.

If You Want to Extend Your Business among the Mill Owners of America,
 WHY DON'T YOU ADVERTISE IN
THE UNITED STATES MILLER?

ESTABLISHED 1876.

Subscription Price, - - \$1.00 Per Year.

A paper that reaches over 5,000 persons and firms interested in the milling business, every month. Mill Builders, Mill Furnishers, Flour Brokers, Insurance Companies, Ocean, Lake and Rail Transportation Companies, Millers seeking trade with Eastern, Southern and European Flour Dealers, Millwrights, Mill Supply dealers and in short all desiring to reach the trade should not fail to order their advertisement inserted. Will insert advertisements when ordered for six months or one year at the rate of \$1.00 per inch, single column width for each insertion. Address all communications to

E. HARRISON CAWKER,

Publisher "UNITED STATES MILLER," MILWAUKEE, WIS.

CAWKER'S AMERICAN FLOUR MILL DIRECTORY FOR 1886

ISSUED FEBRUARY, 1886. PRICE, \$10.00.

SENT BY MAIL, REGISTERED AND POST-PAID. EVERY

MILL • FURNISHER, • FLOUR • BROKER, • TRANSPORTATION • COMPANY, • INSURANCE • COMPANY
FLOUR IMPORTER, MERCHANT MILLER,

Or anyone desiring to reach those connected with the **FLOURING INDUSTRY**, should order this Book at once.

THIS Directory contains the names and addresses of 18,239 Flour Mill owners in the United States and Dominion of Canada. It further specifies in many thousands of cases whether stones or rolls or both are used in the manufacture of flour; whether rye, buckwheat, cornmeal or oatmeal are specialties; whether steam or water power is used. Names of Millowners estimated to have over \$10,000 invested in the business are marked by a special sign. It also contains a reliable list of **MILLWRIGHTS** in the U. S. and Canada, and a long list of the **PRINCIPAL FLOUR BROKERS** in the U. S. and Canada, and a list of **EUROPEAN FLOUR IMPORTERS**. These last named lists are of immense value to **MILLERS**. Address all communications and make all paper payable to the order of

E. HARRISON CAWKER, No. 124 Grand Avenue, MILWAUKEE, WIS.

• Private • Telegraphic • Cipher •

COMPILED EXPRESSLY FOR THE USE OF

Millers, Flour and Grain Brokers, for Private Telegraphic Correspondence,
 either for Land or Cable Lines.

THIS CODE has been approved and is used by many of the best firms in this country and in Europe. It contains Flour Tables, Bran Tables, Middlings Tables, Flour Grades and Brands, Time of Shipment, Dates, Names of Places, American Currency, Sterling Quotations, Table on Limits, etc., Drawing, Credits, etc., Selling, Buying, Orders and Offers, Consignments and Shipments on Joint Account, Miscellaneous, Market Upwards, Market Downwards, Insurance, Shipping and Freight, Shipping by Regular Lines of Steamers, Finance, Bankers' Names, Standing of Firms, Telegraphing, Advances, Commission, Stocks and Crops, Weather, Samples and Quality, Equivalent of Sacks in Barrel Quantities, Commission Tables, Interest Tables, Equivalent Flour Prices in Currency, Sterling, Francs, Guilders, and Marks, Comparative Tables, Sack and Barrel Flour, Ocean Freight Rates (Comparative Table), Sailings from Seaboard (Table) Key to Sailings from Seaboard Table, Foreign Weights and Measures, etc.

We respectfully refer to the following well-known firms: S. H. Seamans (Empire Mills), Sec'y of the Millers' National Association; E. Sanderson & Co. (Phoenix Mills), Milwaukee, Wis.; Daisy Roller Mills, Milwaukee, Wis.; Nunnemacher & Co. (Star Mills), Milwaukee, Wis.; Roots & Co., (Millers), Cincinnati, O.; C. H. Seybt, (Miller), Highland, Ill.; Kosmack & Co. (Flour Brokers), Glasgow, Scotland; J. F. Imbs & Co., (Millers), St. Louis, Mo.; E. Schraudenbach, Okauchee Roller Mills, Wis.; Winona Mill Co., Winona, Minn.; Herrick, Kirk & Co., New York; and many others. Name of firm ordering copies printed on title page with cable address, etc., free of charge, making it to all intents and purposes your own *Private Cable Code*. State number of copies desired when writing. Prices furnished on application. Address,

THE RIVERSIDE PRINTING CO., 124 GRAND AVENUE, MILWAUKEE, WIS.

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Commission Merchants

3 INSURANCE EXCHANGE BLDG.,

218 La Salle St., CHICAGO.

GRAIN AND PROVISIONS.

Bought or sold for shipment, or carried on margins.
Market Reports furnished to correspondents.

(ESTABLISHED 1855.)

J. O. MATHEWSON & CO.

GENERAL COMMISSION MERCHANTS,

AUGUSTA, - GEORGIA.

E. B. OWENS & CO.,

Provisions and Grain

BALTIMORE, MD.

Sell on Track West and to Arrive.
Fine Storage Cellars for Meat and Lard.
Handle all kinds of Grain.
Liberal Advances on Consignments.

REFER TO Western National Bank, Baltimore; Citizens' National Bank, Baltimore; Wm. Ryan & Sons, Dubuque, Iowa; Whitmore Bros., Quincy, Ill.; Bloomington Pork Packing Co., Bloomington, Ill.

L. EVERINGHAM & CO.,

(ESTABLISHED 1865.)

Commission Merchants

200-201 Royal Insurance Building,
Opposite New Board of Trade, CHICAGO

THE PURCHASE AND SALE OF
GRAIN AND PROVISIONS
On the Chicago Board of Trade.
For cash or future delivery, a specialty.

Special information, indicating course of markets,
freely furnished upon request.

WM. GRIFFITHS. JAMES MARSHALL. GEO. E. DODGE.

GRIFFITHS, MARSHALL & CO.,

GRAIN :: COMMISSION

MINNEAPOLIS AND DULUTH, MINN.

Orders for Choice Milling Wheat Given Special
Attention.

FLOUR :: BROKER

MILLERS DESIRING TO SELL FLOURS BY SAMPLE in car lots in the cities of Baltimore, Md., or Washington, D. C., should communicate with P. H. HILL, Millers' Agent, WASHINGTON, D. C., and for Philadelphia, Pa., communicate with HILL & SCHAAF, Millers' Agents and Grain Brokers, 219 North Broad St., PHILADELPHIA, PA. Highest references.

SAM'L E. DUNHAM & CO.,

COMMISSION

Provisions and Grain

ROOM 83,

Board of Trade, CHICAGO.

The purchase of grain for shipment to home markets
a specialty.

N. S. CLARK.

A. C. MARTIN.

CLARK & MARTIN,

Commission Merchants

FLOUR, GRAIN, FEED AND HAY,

No. 51 West Second St., Cincinnati, O.

PATTERSON BROS. & CO.,

Commission Merchants

FOR SALE OF
WHEAT, CORN, OATS, RYE.
DEALERS IN

Seeds, Hominy, Grits, Steam Dried Corn Meal.

44 VINE ST., CINCINNATI.

ORDERS AND CONSIGNMENTS SOLICITED.

JNO. R. TURRENTINE,

—GENERAL—

Merchandise and Produce Broker,

FLOUR, GRAIN, HAY AND RICE.

Dock Street, WILMINGTON, N. C.
MEMBER OF CHICAGO BOARD OF TRADE.

Refers by permission to A. K. Walker, Esq., cashier First Nat'l Bank, Hall & Pearsall, Adrian & Volders, Merchants, Wilmington; Robt. Carey & Co., New Orleans, La.; Geo. P. Plant & Co., St. Louis, Mo.; Martin & Bennett, Chicago, Ill.

Solicits Orders for Carolina Rice and Peanuts.

OWEN & BRO.,

Commission • Merchants,

36 Chamber of Commerce, MILWAUKEE.

We give special attention to the purchase and sale
of grain or provisions, for future delivery, here or
in other markets.

Information regarding the present condition and
future outlook for prices furnished on request.

OWEN & BRO.

S. S. STOUT.

H. G. UNDERWOOD.

STOUT & UNDERWOOD,

(Formerly Examiners U. S. Patent Office.)

SOLICITORS OF

PATENTS

66 Wisconsin Street,

MILWAUKEE, WIS.

TELEPHONE No. 592.

Life Insurance.

New England Mutual

LIFE INSURANCE CO.
OF BOSTON.

Assets, - - - - - \$17,846,546.65
Liabilities, - - - - - \$15,288,761.16

Total Surplus, - - - - - \$ 2,607,785.49

BENJ. F. STEVENS, Pres't.
JOSEPH M. GIBBENS, Sec'y.

BOILER INSURANCE.

AMERICAN

Steam Boiler Insurance Company

OFFICE, 45 WILLIAM ST., NEW YORK.

Cash Capital, - - - - - \$200,000

ASSETS JANUARY 1st, 1885.
U. S. Gov. Registered Bonds, of which \$100,000 is lodged with the Insurance Department at Albany, N. Y. \$216,138.00
Cash in bank and in office 10,668.72
Premiums in course of collection 16,839.35

\$243,694.33

LIABILITIES.
Reinsurance reserve 40,225.00
All other demands 2,013.27

\$ 43,149.24

WILLIAM K. LOTHROP, President.
WILLIAM E. MIDGLEY, Vice-Pres.
VINCENT R. SCHENCK, Secretary.

Fire Insurance.

Every miller and manufacturer having an A 1 risk, should apply for insurance in the Allied Mutual Fire Insurance Companies, of which S. H. Seamans, Milwaukee, Wis., is secretary.

CONNECTICUT

FIRE INSURANCE CO.,

HARTFORD, - CONNECTICUT.

Cash Capital, - - - - - \$1,000,000 00
Reserve for Reinsurance, - - - - - 580,689 40
Outstanding Claims, - - - - - 90,396 57
Net Surplus, - - - - - 303,683 78

Total Assets, Jan. 1, 1886, - \$1,974,749 75
Surplus to Policy-holders, - \$1,303,683 78

J. D. BROWNE, President,
CHARLES R. BURT, Secretary.
L. W. CLARKE, Ass't Secretary.

Attention!

CUSTOM and EXCHANGE MILLERS.

We have made arrangements with Potter & Huntington, whereby we can furnish one of their EXCHANGE TABLES and UNITED STATES MILLER for one year, for \$1.50; the price of the Exchange Table alone is \$1.00. This is probably the best Table ever prepared for Millers doing an Exchange or Custom Business. The range is from 25 to 36 lbs. of flour to each 60 lbs. of wheat, and corresponding amount of bran and middlings. (Toll and waste in milling deducted.) There are twelve Tables each of a different grade of wheat, and each Table a different amount of flour and feed and can be used for any amount of wheat, from two lbs. up to any No. of bushels. There is no guess work about it, but all from actual experience. By it the Miller is always sure of his allowance of Toll. Hundreds of them are being sent to all parts of the United States and Canada. Send us One Dollar and Fifty Cents and we will send the Table and credit you for one year's subscription to the UNITED STATES MILLER. Address, UNITED STATES MILLER, 124 Grand Avenue, Milwaukee, Wis.

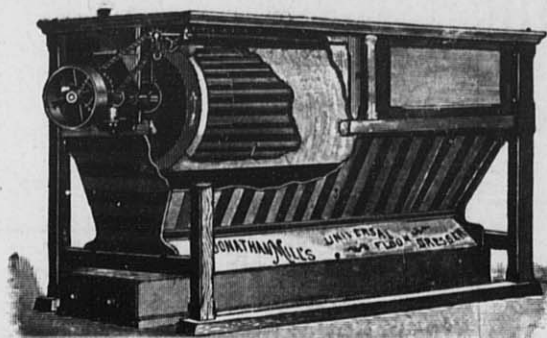
JONATHAN MILLS UNIVERSAL FLOUR DRESSER

GUARANTEED TO BE SUPERIOR TO ANY CLOTH BOLTING DEVICE FOR
CLEAR, CLEAN

Bolting or Re-Bolting

OF ALL GRADES OF FLOUR.

They cannot be beat on any Stock, and are being extensively adopted for the entire Bolting in new mills

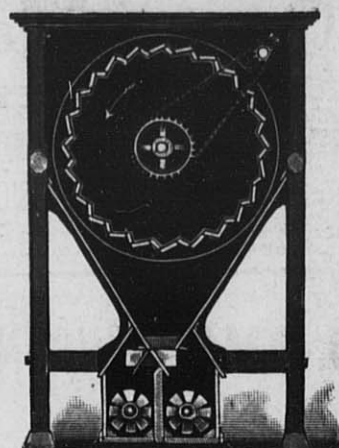


Finely Designed and Mechanically Constructed.

Slow Speed

Occupies Small Space, and has Immense Capacity

For Price Lists, Sizes and Dimensions send to the



THE PROSPECT MACHINE & ENGINE CO., CLEVELAND, OHIO.

(Formerly THE CUMMER ENGINE CO.)

Send also for 150 Page Catalogue Describing their Engine.

"TRIUMPH" CORN SHELLER

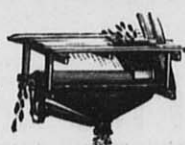
CAPACITY
2000 BUSHELS PER DAY.

Shells wet or dry corn.

CHEAPEST AND BEST SHELLER.

PAIGE MANUF'G CO.,

No. 12 Fourth St., Painesville,



A. BLOEDEL,

Manufacturing

Jeweler & Diamond Setter,

Dealer in

WATCHES, CLOCKS, JEWELRY,

Silver and Plated Ware.

Special Attention Given to Repairing.

No. 106 GRAND AVE.,

Cor. West Water St.,

MILWAUKEE, WIS.

BIRGE & SMITH,

PRACTICAL

Millwrights,

PLANS, SPECIFICATIONS AND ESTIMATES MADE
FOR ALL KINDS OF

MILLWORK, MACHINERY, &c.

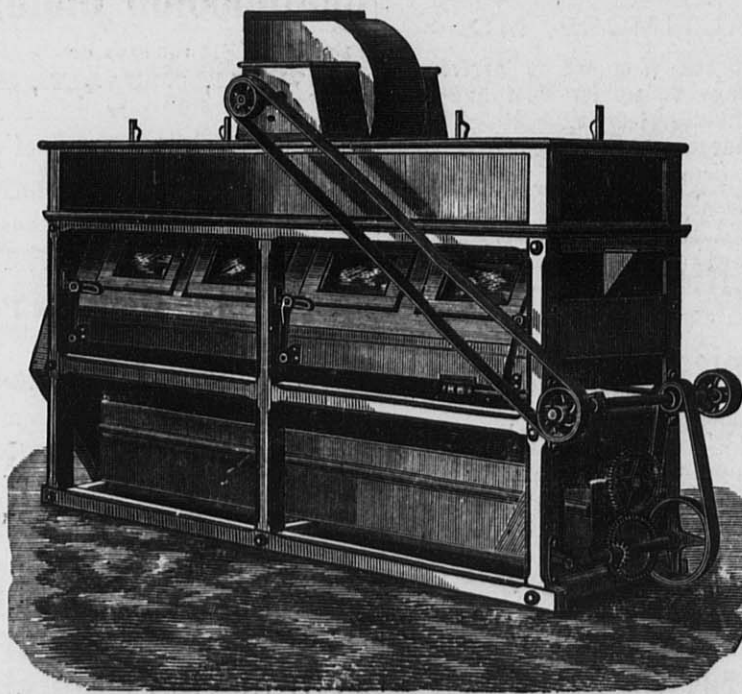
Flour, Sawmill, Tanners' and Brewers' Machinery
AND GENERAL MILL FURNISHERS.

Cor. East Water and Knapp Sts.,
MILWAUKEE, WIS.

Eureka * Middlings * Purifier!

BEST AND SIMPLEST MACHINE IN THE MARKET.

Entirely Original.



One Invention and Manufacture

LEAST SPACE. LEAST POWER. AUTOMATIC FEED.

Best Device for Attaching and Stretching Cloth.

(Cloth can be changed in five minutes.)

Best Controlled and Evenest Air on Cloth, making it of Great Capacity.

Machines Warranted in every Respect.

FOR FURTHER PARTICULARS, ADDRESS,

C. N. SMITH, DAYTON, OHIO.

	Length of Cloth.	Width.	Extreme Height.	Pulley.	Speed.
00	8 ft.	3 ft.	6 ft. 6 in.	5 x 3	500
0	10 ft.	3 ft.	6 ft. 6 in.	5 x 3	500
1	10 ft.	4 ft.	7 ft. 6 in.	6 x 3	500

[Please mention this paper when you write to us.]

UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

PUBLISHED MONTHLY.

OFFICE, NO. 124 GRAND AVENUE, MILWAUKEE.

SUBSCRIPTION PRICE—PER YEAR, IN ADVANCE.

To American subscribers, postage prepaid..... \$1.00
 To Canadian subscribers, postage prepaid..... 1.00
 Foreign subscriptions..... 1.25
 All Drafts and Post-Office Money Orders must be made payable to E. Harrison Cawker.
 Bills for advertising will be sent monthly, unless otherwise agreed upon.
 For estimates for advertising, address the UNITED STATES MILLER.

[Entered at the Post Office at Milwaukee, Wis., as second-class matter.]

MILWAUKEE, JULY, 1886.

We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

MILWAUKEE AMUSEMENTS.

ACADEMY OF MUSIC—Performances every evening, Wednesday, Saturday and Sunday matinees.

GRAND OPERA HOUSE.—Performances every evening, and Wednesday, Saturday and Sunday matinees.

DIME MUSEUM.—Performances every hour from 1 P. M. to 10 P. M. every day.

NEW PEOPLE'S THEATRE.—Performances every evening, and Wednesday, Saturday and Sunday matinees.

AMONG THE NORTHERN LAKES

of Wisconsin, Minnesota and Iowa, are hundreds of delightful places where one can pass the summer months in quiet rest and enjoyment, and return home at the end of the heated term completely rejuvenated. Each recurring season brings to Oconomowoc, Waukesha, Beaver Dam, Frontenac, Okoboji, Minnetonka, White Bear, and innumerable other charming localities with romantic names, thousands of our best people whose winter homes are on either side of Mason and Dixon's line. Elegance and comfort at a moderate cost can be readily obtained. A list of summer homes with all necessary information pertaining thereto is being distributed by the CHICAGO, MILWAUKEE & ST. PAUL RAILWAY, and will be sent free upon application by letter to A. V. H. Carpenter, General Passenger Agent, Milwaukee, Wis.

C. F. REIFSNIDER, editor of *The St. Louis Miller*, made us a brief call recently.

CAPT. B. F. RYER, of the Garden City Mill Furnishing Co., Chicago, Ill., made us a brief call June 13.

MILL and elevator men will do well to consult the advertisement in this issue of the MARSHALL AUTOMATIC GRAIN SCALE.

C. N. SMITH, of Dayton, O., advertises his EUREKA MIDDINGS PURIFIER in this number. A large number of these machines are in use, and they are doing good work. Mr. Smith has recently invented a dust collector, which is just about ready to be placed on the market.

THE Sangerfest week, commencing July 19, will be an event in the history of Milwaukee long to be remembered. It is estimated that at least 150,000 visitors will be in the city the greater part of the week. No pains or expense have been spared to make the occasion a success in every way. We hope to see a large number of the milling fraternity in the city on this occasion.

BERNHARD STERN succeeds Stern & Wohlrab as proprietor of the Jupiter Mills in Milwaukee.

HENRY HAMPER, representing Howes & Ewell, of Silver Creek, N. Y., recently made Milwaukee a short visit.

MR. TIETJEN, representing the Nordyke & Marmon Co., Indianapolis, Ind., recently spent a day in the city.

A NUMBER of gentlemen well known in the trade have been in Milwaukee several days during the past month giving testimony in the Dust Collector case.

THE Daisy Roller Mill has started up and is running on full time, and everybody connected with the enterprise express themselves as well pleased.

THE June number of *The American Brewers' Gazette* (New York) is an exceptionally good one, containing much not only of interest to the trade, but to the scientific reader.

A COMMITTEE appointed by the New York Produce Exchange has agreed upon a new form of charter party which it is believed will be acceptable to ship-brokers, vessel owners and all other parties. The *New York Commercial Bulletin* of July 3d prints the form in full.

THE Chicago *Railway Age*, a recognized authority, makes the statement that railway construction in 1886 will "far exceed that of the two preceding years, and, indeed, surpass that of most of the years in the history of the country." This statement is supported by details, derived chiefly from official or semi-official sources, and must therefore be accepted as reliable.

THE bureau of statistics has issued a statement showing that our exports of merchandise continue to decline, while the imports of foreign merchandise show a decided increase over values for the preceding year. For the eleven months closed with May, our exports of merchandise foot up \$624,431,670, a decline of \$70,275,065 compared with the same period of the last fiscal year, and a decline of over \$215,000,000 compared with the eleven months ending May 31, 1881.

OUR old and esteemed contemporary, *Der Deutsch Amerikanische Mueller*, has changed its name to "*German-American Miller*," and, commencing with the June number, is printed in both German and English. We congratulate its publisher, Hon. Eugene A. Sittig, upon this new departure, and have no doubt but what it will meet with the general approval of the trade.

A LICENSE of incorporation was issued by the secretary of state of Illinois June 26 to The Consolidated Roller Mill Co. at Chicago. Capital, \$100,000. The following manufacturers of roller mills are named as incorporators: William W. Allis (of E. P. Allis & Co.), of Milwaukee; Addison H. Nordyke (of The Nordyke & Marmon Co.), of Indianapolis, Ind., and George N. Bierce (of The Stilwell & Bierce Mfg. Co.), of Dayton, O.

The object of the new company, we believe, is to defend against the Downton suits and to stop the cutting of prices and the giving of long credits on millium machinery, which have proved most disastrous to business during the past two years. Other companies than those named above are thought to be interested in the "pool." If so millers may look for higher prices and shorter credits.

FOREIGN ITEMS.

A CORRESPONDENT lately returned from a visit to the Pesth mills, says that most of the Pesth millers still use stones for the production of their patent flour from the best middlings, and that the numbers of silk used for dressing this flour are Nos. 15 and 16; of course the mills are not automatic.

ACCORDING to a French contemporary, *La France*, of the 4th June, wheat is now actually cheaper in the United States than wood in France, the price of the latter commodity being quoted at one sou the livre, or rather less than a penny the pound in France, and that, it is said, is precisely the value of wheat in Kansas. At that rate, says our contemporary, a farmer might use his crops to warm himself with as good a right as the tramp who picks a few dead branches from the edge of a forest.

MR. COMERFORD, of Rathdrum, Ireland, has invented a dust collector in which no cloth is used. The air is drawn through a slowly and continually moving layer of wheat which is elevated to a scalper, where the dust is removed and the wheat returned automatically to the dust collector. The air perfectly pure escapes through perforated zinc, of which the sides of the machine are framed. The operation of this machine was recently witnessed by more than 100 millers attending the Millers Convention in Dublin.

THE Annual Convention of the British and Irish Millers was held in Dublin June 9—12 inclusive. It was in every way a success.

ROUMANIA has approved a tariff bill increasing tariff duties about 30 per cent.

A ROLLER mill has just been completed by an English builder for M. W. Connolly, at Goulbourn, New South Wales.

SCRAFTON BROS., of Bishop Auckland, N.Z., have recently increased the capacity of their roller mill.

QUITE a number of roller mills are being erected in Australia.

THE last crop reports from India indicate a decline of about nine per cent. from last year's crop, and the exports to Europe will undoubtedly show a considerable falling off.

GRAIN STORAGE RATES.

Chicago and Milwaukee elevators have adopted the following reduced storage rates for grain, taking effect July 1:

On all grain received in bulk and inspected in good condition, three-fourths ($\frac{3}{4}$) of 1 cent per bushel for the first ten days or part of same, and one-half ($\frac{1}{2}$) of 1 cent per bushel for each additional ten days or part of same, so long as it remains in good condition.

On and after the 15th day of November next, upon grain in good condition, storage will be at the foregoing rates, until four (4) cents per bushel shall have accrued, after which no additional storage will be charged.

until the 15th day of April, 1887, so long as the grain remains in good condition.

On grain damp, or liable to early damage, as indicated by its inspection when received, two (2) cents per bushel for the first ten days or part of same, and one-half ($\frac{1}{2}$) of 1 cent for each additional five days or part thereof. And upon such grain there will be no special rate for winter storage.

No grain will be received in store until it has been inspected and graded by authorized inspectors, unless by special agreement.

NEWS.

The Stilwell & Bierce Mfg. Co. of Columbus, O., have contracted to build a 500-barrel mill at Lockport, N. Y.

The Ypsilanti Machine Co., Ypsilanti, Mich., are building mills at Hastings, Mich., and Goshen, Ind., of capacity of about 100 barrels each.

The Alma City Mill Co. (Minn.) has incorporated, with a capital of \$12,000.

The Walton Mfg. Co., Gallatin, Tenn., contemplates changing its mills to the roller system this season.

Ogilvie & Co. are building a new mill at Montreal, Canada, of 1,500 barrels per day capacity.

The Prospect Machine & Engine Co. (formerly the Cummer Engine Co.), Cleveland, O., have recently transferred their reel and pattern departments into their new wood shops, which they were compelled to build on account of the great increase in their reel trade. They supposed they were building large enough to meet the trade for this year, but have had to put in electric lights and run nights, and now find that it will be necessary to again increase, and are preparing to about double their capacity. Within the past thirty days they have received orders from about every State in the Union, several for full bolting systems for new mills. They state their sales for the month of June are about double those of the previous month and are constantly on the increase.

The largest traffic through St. Mary's Falls ship canal ever recorded was during May, the total amount being 550,965 tons registered.

It is surmised that an American-Chinese railroad syndicate is negotiating with the Chinese government for the purpose of building and operating several thousand miles of railroad in China. It is to be hoped that their efforts will prove successful.

The Northwestern flour shipments continue to go by lake to an extent unprecedented of late years. In the last five weeks reported (ending June 12), out of 1,046,539 barrels shipped, 591,947 barrels, or 56½ per cent., went by lake, and only 453,883 barrels (38½ per cent.) by rail, the other 5 per cent. going down the Mississippi. During the same five weeks the lake shipments of grain were not quite 60 per cent. of the total, and ordinarily the vessels have taken a much larger proportion of the grain than of the flour.

The Milwaukee & Northern Railroad is rapidly being extended from Menominee to Iron Mountain, Mich., and will shortly reach the latter point. A survey has been made from Iron Mountain to Republic, a distance of about forty miles, the company considering the feasibility of building a line to the latter place this season, and from Republic it will probably be pushed through to Marquette, thirty-five miles distant. It would be for the advantage of the Milwaukee & Northern to go to Marquette, as one from the Republic district would have to be hauled from there to Menominee or Marquette, over 100 miles, for shipment, unless the road was run through to Marquette.

A prominent vessel agent at Duluth recently said: "Formerly nearly all the flour which was shipped out of Duluth for the East went to the New York Central road at Buffalo or its controlled lines. Now it is very different. That road gets but a very small percentage of the total amount shipped east from here. The Lackawanna gets the largest proportion of the flour, while the Grand Trunk, Erie, Lehigh Valley and Baltimore & Ohio come in for their share. The breaking up of this monopoly is due to E. F. Dodge, of the St. Paul & Duluth road."

The Baltimore & Ohio is a recent competitor for the flour trade, but a number of cargoes are con-

tracted for the rest of the season. The vessels take the flour to Sandusky, O., whence it goes to Baltimore for export. The flour shipments for June were over 300,000 barrels, which is an average of over 10,000 barrels a day. For the season they have so far amounted to about 530,000 barrels. At this rate the lake shipments will run up to 1,700,000 or 1,800,000 barrels this year, against 1,100,000 last year.

The receipts of flour at Buffalo by lake during June show an increase of 329,664 barrels over the same month last year.

The Tracy Roller Mill Co. of Tracy, Minn., capital stock of \$50,000, has filed articles of incorporation.

W. H. Kerr, Dunham, N. C., will erect a bag factory next fall.

The Duluth Roller Mill Co. has decided to erect an elevator adjoining the mill large enough to hold 50,000 to 100,000 bushels of wheat. Work on the mill is progressing rapidly.

Improvements are being made at Minneapolis in the water power on the East Side in the interests of the Minneapolis Mill Co. There will doubtless be a big litigation over the matter, as the improvements being made will doubtless draw off a large amount of water which has heretofore been used on the west side of the river.

The Manufacturers' Mutual Insurance Co. of Indianapolis, Ind., has been organized, with officers as follows: President, A. H. Nurdyke; secretary, Charles D. Funston, and treasurer, Geo. Merritt. The company commenced doing business July 1.

BURNED, June 27, Rossberg & Mieser's elevator at Chilton, Wis., and 4,000 bushels of wheat. Loss on elevator, \$7,000. Insurance, \$3,200. Grain fully insured.

BURNED by incendiaries, June 9, Wm. Marshall's flour mill at East Marlborough, Pa. Loss, \$17,000. Insurance, \$11,000.

BURNED, June 21, the New England Institute Fair Building, in Boston, Mass. It was used as a storehouse and repairing shop by the street railway company. Nine workmen lost their lives. The money loss is estimated to be \$300,000. Insurance, \$110,000. Fire supposed to be incendiary.

DULUTH has a new fire insurance company named "The Northwestern," which issued its first policy June 13.

BURNED, June 24, Funk's Fairview mills, near Waynesborough, Pa. Loss, \$10,000. Insurance, \$6,000. The mill had just been remodeled.

At Tilsanburg, Ont., June 20, Tilsan's oat-meal mill and elevator, together with 24,000 bushels of grain and 1,300 barrels of oat-meal, were burned. Loss, \$28,000. Insurance, \$13,000.

ECKHARDT & SWAN's mill and stock at Chicago, Ill., was damaged by fire July 5, to the extent of about \$40,000. Insured.

At Eau Claire, Wis., June 23, at a joint meeting of the Mutual Fire Association and the Lumbermen and Manufacturers' Fire Insurance Company, of that city, arrangements were made to reorganize and do a general insurance business after September 1, instead of confining their business exclusively to the protection of saw-mills.

At St. Thomas, Ont., June 28, Scott & Co.'s oat-meal mill was burned. Loss, \$10,000; no insurance.

A SYNDICATE appears to have control of the grain-bag market on the Pacific Coast, and the price of bags is continually increasing.

SOLD OUT.—C. H. Merritt & Co., of San Antonio, Tex.

The Baltimore Sun of June 19 says: "Over 300 carloads of Minnesota flour in sacks were on the tracks at Canton yesterday, awaiting export to Europe. The shipments are on through bills of lading, and came by lake and Northern Central Railroad. Two steamships for London and one for Bristol, England, were loading with flour, barreled meat, grain, etc. This movement of flour direct from Minnesota millers to Europe is attracting attention. The steamship Lambert cleared for London with 17,916 sacks of flour of 2,578, 40 pounds, and 48,000 bushels of wheat flour for export is now generally sent in sacks of 180 pounds, or, as the English dealers have it, in sacks of nine score pounds.

The mill-dam at Fairhaven, Minn., was damaged about \$2,000 worth by the storm June 15.

An important enterprise in Dixon, Ill., is the flax-bagging mill of Geo. H. Squires. This industry has complete machinery, giving employment to fifty

hands. Its products are in constant demand, and compare favorably with similar establishments situated elsewhere.

ARTICLES of incorporation have been filed of the Christian Brothers' Mill Co., Minneapolis, with a capital stock of \$500,000, the same sum being the limit of indebtedness. The names of the incorporators are J. A. Christian, L. Christian, Charles M. Hardenburg and C. E. French.

The Duluth Board of Trade is to be incorporated.

The new directory of Dubuque, Ia., just issued, shows that the population of the city is over 35,000, a healthy increase during the past year.

At Quincy, Ill., June 27, the Center mill, an old flouring mill, corner of Jersey and Front streets, was burned. It has not been used for seven years. It belonged to the First National Bank, and they are supposed to have an insurance of \$5,000. The fire was the work of an incendiary.

PROF. RICHARD T. ELY, the economist of the foremost educational institution in America, Johns Hopkins University, contributes the second of his timely "Social Studies" to the August Harper's. Under the heading of "The Economic Evils in American Railway Methods" he lays bare some glaring abuses which are generally overlooked or underestimated.

The New York Commercial Bulletin of June 2 says: "The New England Mutual Mill companies have made such inroads upon the business of some of the larger stock companies that the latter are devising ways to meet that competition. The Phenix has adopted the mutual plan of large lines upon the stock basis, and is writing \$50,000 lines on first-class risks. The boldness of the New York Mutual in writing large lines, and the exceptional, not to say accidental, success of its daring movement has aroused some of the million dollar fellows to braver action."

MANAGEMENT OF PURIFIERS.—The Geo. T. Smith Middlings Purifier Co. give the following hints on the management of the purifier: Always load a machine as heavily as possible without making the tailings too rich. If necessary let the purifier return to itself sufficiently to accomplish this end. Cut off and return a few inches from the head of the machine to avoid specks. Until the machine is properly adjusted the pockets should be emptied daily, but whenever it is possible to judge closely enough as to waste, no harm will be done if they are not emptied. On extremely close middlings if very strong air currents are desired, increase the speed of the fan by decreasing the diameter of the pulley on fan shaft. As the air is decreased the sifting capacity of the sieve is increased, therefore you can reduce the richness of the tailings by reducing the volume of air on the tail section of the cloth, or vice versa. When dust collectors are used in connection with the purifier, careful examination should be made to see that they do not impede the necessary flow of air through the cloth. Air currents of proper strength can be maintained by suitably increasing the speed of the fan.

At Fort Collins, Colo., July 10, the Lindell Mills, owned by the Colorado Milling and Elevator Co., caught fire, and were completely destroyed. The loss is \$60,000; insurance, \$28,000. The cause of the fire is unknown.

DEATHS AND ACCIDENTS.

W. F. Cahill, of Minneapolis, died June 20, after a long and painful illness. He had been prominently identified with milling interests for over twenty-five years. He was the senior partner of the firm of Cahill, Fletcher & Co., of the Galaxy mill.

We regret to note that Mr. David Van Nostrand, the well-known book importer and publisher of New York, died in that city on the 14th inst., of a complication of disorders.

R. Barden, one of the oldest grain operators in Minnesota and member of the Minneapolis Board of Trade, died July 2, at Minneapolis.

We will send The Milling World (weekly) and the U. S. Miller for one year for \$2.00.

We will send the U. S. Miller and American Miller for one year for \$1.50.

JOHN A. CHRISTIAN.

John A. Christian, the well-known Minneapolis miller, died at his country home on Lake Minnetonka, July 2. The *Northwestern Miller* of Minneapolis, in recording his death, gives the following brief sketch of his life:

John Augustus Christian was born at Wilmington, N. C., Sept. 12, 1832, and lived there until his parents removed to Wetumka, Ala., in 1836. Shortly afterward they moved up the country a dozen miles to a plantation on the Coosa river, where they resided for five years. During that time Mr. Christian was sent to school at Columbus, Miss., where he remained about two years. Then he returned with his family to Wilmington, and resided there and attended school until 1847, when the family moved to Walworth County, Wisconsin, and opened up a new farm upon what was then considered one of the most promising sections of the State. He remained on the farm, performing the hardest manual labor, until 1852, when at the age of twenty years he started out for himself, and went to the then young city of Chicago, where he worked in various mercantile establishments for two or three years, when he entered a grain commission house and remained there for some time, learning the rudiments of the business which he was destined to follow for so many years of his active business life. In 1857 he removed to Caledonia, Ill., and embarked as a stock and grain buyer on his own account. Two years afterward he failed in business, through a complication of circumstances which he was unable to control, but succeeded in a few years in paying the claims of his creditors in full. After his failure he decided to go to California, but owing to the inability of his traveling companion to get started as soon as expected, he did not leave Illinois until 1860, when he started alone with money enough in his pocket to pay his fare to Hannibal, Mo. Upon arriving there he applied for a position in the office of the Hannibal & St. Joseph Railway, and was sent to Hannibal, where he remained six weeks and earned enough to pay his fare to Denver, Colo. By driving cattle alternately with his companion, and paying \$20 for the privilege, with the understanding that he was to travel without cost, he succeeded in arriving at Denver with \$50 in his pocket. There he and his companion formed a partnership with two other young men, who were endeavoring to make their fortunes in the new mining country just opened, and started for the Pike's Peak country. The four had two ponies and \$100 in money with which to begin their operations.

One of his comrades, W. E. Grinnell, now a commission merchant in Minneapolis, was taken sick and had a severe siege of mountain fever. This broke up the mining scheme, the party camping and nursing the sick man carefully until he recovered. Before this time their provisions and money were exhausted and it became necessary to hunt for something to eat. At a ranch near by they got flour and bacon on credit, but the merchant would not trust them for tobacco, telling them that they could live without that, "but flour and bacon they must have." The boys finally found work on a big placer mining ditch, and managed to pull through until spring, but none of them, so far as heard from, ever made much out of the mines. Mr.

Christian was more fortunate than the others, and they often depended on him for a living. It was the hard life, the bitter sufferings, the severe privations, the reckless exposure to mountain weather, that made an old man of John A. Christian before his time. Not but that he would have worked hard, no matter where his lot was cast, for there was not a lazy bone in his body.

After several years of hard work, with the ups and downs incident to the life of a prospector, finally accumulating a few thousand dollars, Mr. Christian left Colorado and came to Minnesota in 1869, and ran the Zenith mill for two years. He entered the firm of Geo. H. Christian & Co. in 1872, and a year later Geo. H. retired, and the firm name was changed to J. A. Christian & Co. C. C. Washburn was a member of this firm, which had been operating the Washburn A mill, and continued to do so until the great explosion in May, 1878. In November, 1873, the firm bought the Pettit mill, the old owners becoming his partners, with Mr. Christian as managing partner. About the same time he

only boy and youngest child is five years old, and the eldest of the three girls is about eleven. Since the death of Mrs. Christian, which occurred five years ago, her sister, Mrs. Hall, has kept house and cared for Mr. Christian's family. His possessions will probably aggregate \$300,000, though a less liberal and generous man, with his opportunities, might have amassed a million.

HEATED FLOUR.

We note that in an important communication made to the French Agricultural Society, M. Grandvoimet observes: In the struggle for supremacy between rolls and stones for the manufacture of flour, one question, which has been decided rather too superficially, is the bad effect which may be produced on the quality, or, more properly speaking, the strength of the resulting flour by heat—generated by the grinding process

by stones and by rolls.

The partisans of rolls affirm that the long time which the grain remains subject to the action of the stones, so heats the product as often to kill the flour, that is to say, it causes the gluten to lose its elastic properties. The advocates of stones however, attribute the same results to the pressure of the rolls on the middlings. When flour is heated up to more than 100 deg. (Cent.) the well-known experience of M. Peligot goes to prove that the gluten loses the precious property necessary to successful panification. The heating of the meal between stones probably never reaches 100 deg., and we have considered it useless to discover whether a heat of less than 100 deg. would suffice to destroy the elasticity of the gluten. Mr. Colomb-Pradel, late pupil of the Agronomical Society, has kindly charged himself with the trouble of making experiments according to the plan which we laid down for him, viz., to submit samples of the same flour to a gradually-increasing heat, in order to

decide at what point the bad effect of such heat commences. We asked Messrs. Barre & Proirer Jeune, of Dreux, two of the most practical millers in the neighborhood of Paris, to supply some flour made under the best conditions; the following are the results of experiments, communicated by Mr. Colomb-Pradel:

The flour submitted to the test was roller-made, which had not been subjected to any abnormal increase of heat in the manufacture; the average quantity of gluten in the three samples analyzed was 1.70 per cent.

After submitting the samples of flour up to 51 deg. of heat during seven hours, and to 61 deg. for the same period, the same quantity of gluten was extracted as before the heat was applied; up to 65 deg. the yield of gluten was likewise not materially changed. A sample of flour submitted to 71 deg. of heat



JOHN A. CHRISTIAN.

went into the firm of Christian, Bro. & Co., which built and still operates the Crown Roller mill, though lately incorporating as the Christian Bro. Mill Co.

Mr. Christian has always been foremost in all schemes for the good of the city, and associated in most of the great enterprises undertaken here, so that at his death he was a director in the Northwestern National Bank, and in the Minnesota Loan and Trust Co., president of the Minneapolis Millers' Association, vice-president of the Northern Pacific Elevator Co., vice-president of the Red River Valley Elevator Co., and a director in the Minneapolis Elevator Co. He was elected president of the Millers' National Association in June, 1883, and held the office with great credit until May, 1886, when failing health compelled him to refuse a re-election.

Mr. Christian's disease was cancer of the bowels, from which he has suffered severely for the past year, though in poor health for three years. His family consists of four children, who were with him to the last. The

during seven hours did not yield any extractable gluten during the washing-out or levigating process; all the mass was carried away, and a sieve of $\frac{1}{4}$ millimetre did not retain any gluten.

Flour heated by the same temperature of 71 deg. during three hours gave no agglomerated gluten, but the sieve retained fragments, which, however, had lost all cohesion and all its elastic properties.

Heating up to 90 deg. during one hour, as well as that up to 100 deg. during twenty minutes, entirely prevented the separation of gluten by levigation.

All these tests were made three times over on samples of flour of 50 grammes each, enclosed in tubes hermetically sealed, so that no evaporation could take place.

To sum up, it is found that the heating of flour up to 70 deg. does not seem to have any sensible effect upon the gluten; but if this temperature be exceeded the yield of gluten diminishes in proportion as the heat increases.

These tests were made at the laboratory of the Agronomical Institute. The result is that, whether reduced by stones or rolls, if the temperature during the process does not exceed 70 deg. (Cent.), or about 150 deg. (Fah.), the gluten preserves the properties, supposing that the prevailing atmosphere maintains in the flour its normal proportion of moisture.

The question is whether the meal between millstones can reach a temperature of over 70 deg. We do not think so. In the meal-discharge spout from stones properly set we have never found the temperature of the meal more than 33 deg. above that of the ambient air. If the stones are not properly hung, or the feed is too heavy, it is possible that the meal or flour may occasionally reach a heat of 60 deg.; but it is impossible in the case of ordinary working, with either rolls or stones, that the product can be so heated as to destroy the characteristic properties of the gluten. This conclusion of course presupposes that whether between stones or rolls, at the point of contact the temperature of the meal does not materially exceed that when the meal is discharged.—*British Miller and Baker.*

GRADING CORN IN WINTER.

The Chief Inspector of Grain in Chicago recently issued a circular recommending a change in the manner of inspecting corn that is received there during the winter. He proposes to designate as "new" all of it that appears to be dry enough to pass as No. 2. The Grain Receivers' Association at a subsequent meeting adopted resolutions which disapprove the recommendation of the Inspector. Thereupon the *Chicago Tribune* is moved to remark:

"The whole question—and it is an important one to the trade—hinges upon the fact that corn may seem to be dry when frozen, but develop a considerable quantity of dampness on thawing out in the spring. It is then very liable to heat and spoil. Hence arises a danger of passing corn into the speculative grade when it really belongs to a lower one which cannot be trusted to keep in store till the germinating season comes. As the owners and receivers of the corn are always on the lookout for cause of complaint about the

rating of their property lower than it will bear, there is a constant pressure on the working inspectors to rate it too high and let the buyer take the consequences if he allow it to stay in store till the arrival of the risky season. Sometimes these consequences have been very serious. About a dozen years ago nearly all the corn in store in this city—and there was a big lot of it—was black, and much of it became so mushy that it would not run down the elevator spouts when the owners tried to take it out of store. That taught the trade a lesson, and a good many operators looked with favor upon the old-fashioned idea that unless the corn was wanted for immediate use it ought to pass the winter on the cob, while in no event should it be graded as No. 2 till the May succeeding the year of its growth.

THE BUSINESS OUTLOOK.

We take the following extract from the semi-annual circular of the R. G. Dun & Co. Commercial Agency, which we think of interest to our readers:

"The very marked decrease in the number of failures indicates that the trade of the country is in a state of surprising prosperity, when we consider the strain which the commercial body politic has been called upon to undergo from the loss of confidence incident to the widely extended labor troubles of the last few months.

"Following a season of depression and absence of profit, the adverse conditions encountered during the half-year might have resulted most disastrously, but fortunately there was a condition of preparedness for even an almost total cessation of business in large areas of country, and the half year has closed with disasters far less serious, and far less numerous than might have been anticipated. In some respects the six months under review have been fruitful of good results. The conflict between labor and capital, which seemed at all times impending, and which, it was feared, would in the end result ruinously for both interests, has been, in a measure, decided. The result is, that a serious doubt has been weighed and measured, and the extent of an evil heretofore unknown, pretty well ascertained. The extensive labor organizations, and the supposed large revenues which would sustain strikes, and resistance generally to the ordinary laws of trade, are not so seriously estimated now as they were six months ago. There is therefore a greater disposition to extend business operations in the full knowledge of the last six months than at any time for some years past. There is a sense of relief in the minds of merchants, bankers and capitalists, arising more or less out of the events of the past six months, in the belief that the worst that could be expected from the unfavorable conditions has occurred, and, further, that for the future there is a much better and clearer prospect for the commerce of the country. The miracle is that under such a strain mercantile disasters so few and insignificant have occurred. It shows how solid are the foundations of the business fabric, that shocks so severe could be borne with so little damage. It is true that the profits realized have been very slight in many sections of the country, and that, notwithstanding an extremely favorable opening of the season and a steady increase in the volume of business in the last few weeks, the

results of the first six months of the year in the shape of returns are not at all satisfactory. For the remainder of the year, however, the prospect is more than usually good. There seem to be fewer disturbing elements than ever before, confidence is almost universally restored, and the promise of an abundant harvest is well assured, and the autumn season is now looked forward to as likely to yield very liberal returns in trade and banking circles.

There appears to be a better adjustment of values prevalent than for some years past, offering surer opportunities for a profit in the transaction of business. A certain settled standard has succeeded the shifting, unknown basis which has hitherto prevailed, and is a powerful aid to the establishment of the confidence now being gradually restored. The earning power of large corporations, whose securities are held widely throughout the country, such as railroads, manufacturing concerns, banking, and other representative institutions, is now apparently more assured than at this time last year. The steady improvement in the railroad situation is the best indication in this direction, reports showing, not only an increased tonnage, but at rates that yield fair returns. A more certain income for a large class of security holders may therefore be relied upon, and a more settled condition of trade among this class is thereby rendered possible. There is a great increase in the class of security holders, and the number of people in the United States who now live upon the interest of their investments and of loans has of late years enormously increased. Whatever contributes to permanency and certainty of income for this class helps general trade now to a greater extent than ever before. Hence the cessation of the great railroad wars, which, last year, were so destructive of values, is of importance as indicating that the immense capital invested in this means of communication, is now likely to earn a fair return, a matter of great importance to the general trade of the country.

The growth of wealth and money earning capacity of this vast country in the last few years is illustrated by the gradual decline in the rate of interest, the consequences of which are likely to be very important. The rates now prevalent of four and five per cent are almost as universal as five years ago were six and seven per cent. This cheapness of money, while on the one hand it indicates a great abundance and an approach to the monetary conditions which prevail in the wealthiest countries of the old world, is likely on this new continent to have the most important consequences in the extension of undertakings impossible in countries less in size and with restricted resources. This cheapness of money, with confidence restored, and a fairly prosperous condition of affairs existing throughout the country, is likely to stimulate all new enterprises, while the economy with which business can now be transacted, owing to the low rates which prevail, is full of encouragement for the future.

We will send you a copy of "Leffel's Construction of Mill-dams, and Bookwalter's Millwright and Mechanic," and "The U. S. Miller, for one year for \$1.30. Don't miss it.

We will send the U. S. Miller for one year and Ogilvie's Handy Book for \$1.00.

Superlative Machines take the Lead!

BLUE EARTH CITY, MINN., JUNE 28, 1886.

SUPERLATIVE PURIFIER MFG. CO., MILWAUKEE, WIS.

GENTLEMEN:—You wrote us sometime ago enquiring how we liked the American Bolters and the Superlative Purifiers.

The **American Bolter** has worked very satisfactorily in every respect, under all conditions, and we believe it to be **one of the best Bolting devices ever put on the market**, as we have seen many and tried many, but **have never found its equal**.

The **Superlative Purifiers** are a complete success in every respect. **Purifies without waste, and has the most perfect working brush ever used on a Purifier.**

Yours very truly,

FRANCISCO, PRIDE & WING.

Homer C. Wing, Miller.

ADDRESS FOR PRICES, ETC.,

SUPERLATIVE PURIFIER MFG. COMPANY,

MILWAUKEE, WIS.

Marshall Automatic Grain Scale

FOR USE IN

FLOUR MILLS,
BREWERIES,

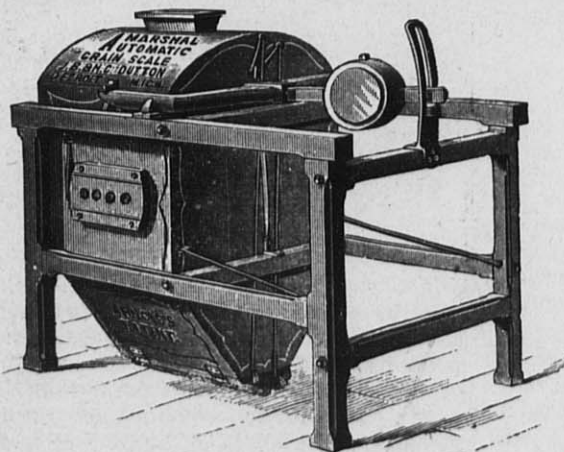
Malt Houses,

ELEVATORS,

Distilleries & Rice & Mills,

OIL MILLS,

Starch Factories, &c.



This Scale is designed for weighing and registering the amount of grain transferred from one point to another. The weighing and recording is absolutely correct, and the machines are sold with a guarantee to that effect. By their use the miller can tell at any time how much wheat he is using to make a barrel of flour and know at once whether he is milling at a profit or loss. This scale can be used with equal advantage by shippers of grain or others who desire to know how much grain, flour feed, bran, shorts, screenings, coal (or any other thing that can be spouted), is being transferred, with a perfect record made of same.

J. B. & H. C. DUTTON, Detroit, Mich.

Gentlemen: We have used the Marshall Automatic Grain Scale in our mill for six months, and it has proved entirely satisfactory.

Yours truly,

ELDRED MILLING CO.

JACKSON, MICH., Nov. 13, 1885.

J. B. DUTTON & CO., DETROIT, MICH.

No. 52 WOODWARD AVE.

SOLE OWNERS OF THE PATENT.

Also handle a full line of Flouring Mill Machinery.

ELEVATOR BARN.

The vast change that has taken place in our farming operations in late years has necessitated a corresponding change in the means employed in successfully conducting a farmer's business. The great farms of the West and Northwest, the stock and dairy farms, cannot be conducted on the same happy-go-lucky basis as an eighty-acre patch. The big farmer must be a business man and pursue business methods.

Some of the barns on the big farms resemble elevators much more than the barns of olden time. Many of them have grain dumps, conveyors, elevators and fanning mills; in fact anything that will tend to lighten labor by requiring a minimum of hands, or render the final returns the largest. Many farmers imagine a fanning-mill, for instance, will only take out stuff that otherwise the grain man will pay for. This is fallacious. The grain man saves himself and the farmer makes money by taking the dirt out himself, rather than by letting the elevator man dock him for it.

All such machinery as dumps, fanning mills, etc., are a positive gain to the farmer both in time and money, and we are glad to see that the better class of farmers are so rapidly adopting such devices. Almost all the furnishers of elevator machinery have more or less trade with farmers of this class, and the trade appears to be growing rapidly. —*American Elevator.*

PLEASANT PARAGRAPHS.

"Now, James," he said to his new son-in-law, when the couple had returned from their bridal tour. "You have money, and you will probably want to speculate more or less. You of course know that I am a broker?"

"Yes, sir."

"And in case you make any deals—"

"Certainly, sir; but you should remember that while circumstances make a father-in-law, choosing your broker is a matter of business.—*Wall Street News*.

TEMPORARILY Embarrassed Thespian—"What, only, \$5?"

Cautious Uncle—"Oh! te vatch het petter chawels I would give you more."

T. E. T.—Look here, Levi! I believe that if I brought you the Kohinoor you'd find some fault with it."

Cautious Uncle—"Vell, you know dere ain't much market now for dem larch diamonds."

"SAY, old man, I'll have to recall that invitation I gave you for a dinner next Saturday." "Certainly; but, old fellow, I hope there's nothing wrong." "O, nothing at all; but, we've suddenly taken a notion to observe Lent at our house." "Indeed?" "Yes. You see, I dropped a cool \$50,000 in stocks, and my wife has discharged her cook; I'm beginning to take an interest in religious matters."

A COUPLE of Dresdeners were promenading on the Bruhl Terrace one night watching the meteors. Said one of them: "Do you know that if you happen to wish anything when you see a shooting star, that wish is certain to be fulfilled?" "Is that a fact?" "Undoubtedly." "Well, then, I wish you to lend me fifty marks on the spot."—*Der Zeitgeist*.

A GENTLEMEN once asked a little girl, an only child, how many sisters she had, and was told "three or four." Her mother asked Mary, when they were alone, what induced her to tell an untruth. "Why, mamma," cried Mary, "I did not want him to think you were so poor that you hadn't but one child. Wouldn't he have thought we were drefful poor?"

"THERE'S nothing like honesty," said the Indiana inn-keeper, "and I am proud to say every one of my children is carrying out the noble precepts that I infused into their minds when they were young." "By the way, Mr. Husher, what has become of your children?" "Well, Harry and Dick are manufacturing oleomargarine in New York; George is running a policy shop in Chicago and Lizzie and Ella are just now Circassian girls in a Buffalo dime museum."—*Tid Bits*.

HARD TIMES.—First Dutchman—"Jake, vat you going to gif your son for a birt-day bresent?"

Second do.—"I don'd know; it's putty hard times. 'I guess I haf some buddons sewed on his clothes."

First do.—Yes, dat's so. I guess I haf my boy's hair cut."—*The Judge*.

A MINISTER may, occasionally, be carried away with the inspiration of his theme, but he generally gets back in time to take up the collection.

A FAMILY SURPRISE.—Mr. T., of a prominent banking house, reached home at 3 o'clock one morning this week. "William, is

that you?" asked his wife. "W-w-why!" said William, with profound surprise, "w-who else d-d-did y-you ex-p-ect?"

In the Peshawur cemetery in India is the following amusing epitaph: "Sacred to the memory of Rev. —, missionary, aged —, murdered by his chowkidar. 'Well done, thou good and faithful servant.'"

THE Tri-State Construction Company is no more. It was organized by a broken-down wheat speculator in Chicago, and he admitted a grocery clerk as a silent partner. The nominal capital was \$3,000,000, and the object was to erect bridges, railroads, steamboats and wheat elevators. The paid-up capital was 75 cents, 70 of which was contributed by the clerk, and is a dead loss. The cause of the failure is attributed to the refusal of the Green Front saloon longer to carry the President on its slate without old accounts being squared up.—*Wall Street News*.

THEY tell a good story on a lawyer of Wooster, Ohio. A client charged with stealing a hog admitted his guilt to his counsel. The latter was noted for his honesty in private life. After thinking the matter over, he said: "John, cut that hog exactly in half and bring one half to me." John obeyed. The evidence for the prosecution was weak, and when the counsel for the defense arose he won the case by saying to the jury: "Gentlemen, I can hold up my hand to heaven and say that the defendant has no more of that hog than I have."—*Pittsburg Telegraph*.

A HEROIC HUSBAND.—"So you have given up smoking to accommodate your wife," said Judge Pennybunker to Kosciusko Murphy.

"Oh, yes, she wanted me to give it up, and I did so."

"Didn't you find it pretty hard to give it up?"

"Yes, I suffered a good deal during the first week, but after that I felt all right."

"What did you do to allay the craving for tobacco?"

"I took to smoking again. That allayed the craving right off."

SCOTCHMAN—"What'll ye hae?"

Frenchman—"I vill take a drop of contradiction."

Scotchman—"What's that?"

Frenchman—"Vell, you put in de whiskey to make it strong, de water to make it weak, de lemon to make it sour, and de sugar to make it sweet. Den you say: 'Here's to you!' and you take it yourself."

A CONNECTICUT man is usually sharp at a bargain when he gives his mind to it. A Waterbury weekly newspaper made an invariable rule to charge \$1 down for a year's subscription, and \$1.25 when the subscriber was in arrears. One subscriber was three weeks behind when he went to renew his subscription the other day. He offered his dollar and was told that \$1.25 was the price. "I'll stop my paper," said the subscriber. "Here are the 12 cents I owe you for the three papers." After the editor had pocketed the 12 cents the subscriber handed out the same dollar and said he guessed he'd subscribe for a year. He saved just 13 cents by the operation. He is 75 years old.

THE striking mania reached a colored preacher in a town in Mississippi the other day, and he arose before his congregation and said: "Chil'en, I'se bin tryin' hard to

preach de gospel on \$2 a week, an' I've got discouraged. You has either got to raise the salary to \$3 or I've gwine to go out an' skirmish fur hogs an' chickens 'long wid de res' of you an' take my chances of gwine to Heaven." By a unanimous vote of the congregation it was decided to continue the salary at \$2 and let him skirmish.

"CAN I take a risk on your life?" asked an insurance agent as he entered a Montgomery street lawyer's office. "No, thank you. I am going to be married next week," replied the lawyer with a far-away look in his eyes. "What has your marriage to do with it?" asked the insurance agent with surprise. "A good deal, sir. One risk is all I wish to carry."—*California Maverick*.

PROFESSOR, looking at his watch—"As we have a few more minutes, I shall be glad to answer any question that any one may wish to ask." Student—"What time is it, please?"—*Troy Times*.

It has become fashionable for girls to have their hair cut short. Let us all heartily support this move, for if there is hair in the hash it will not be too long to swallow.—*Philadelphia Chronicle*.

FAMILY PHYSICIAN "I'm afraid that you have been eating too much cake and candy. Let me see your tongue?"

Little girl—"Oh, you can look at it, but it won't tell."

AN intelligent bull always charges at a red flag. There are some really good points in a bull.

A BANK cashier seldom goes off until he is loaded, and then he makes no report.

MR. HOYT SHERMAN, JR., the U. P. passenger agent was intercepted the other day by a man who boldly announced:

"I want you to give me a pass to Oxford, Idaho, and return."

"Indeed; on what grounds?" asked the agent.

"On these grounds; that, if I don't get the pass I'll walk every foot of the way with my hob-nail boots and wear out your infernal ties for you."

"What's your name, stranger?"

"Joe Rich, of Idaho."

The pass was granted without further ado.—*Salt Lake Herald*.

MILLING IN GERMANY.

In the course of an address delivered a short time since, Herr J. J. Van den Wyngaert, the much respected President of the Association of German Millers, made the following remarks on the present condition and future prospects of milling in Germany. Referring to the fact that for the moment no very essential changes are proposed in milling methods, he expressed the opinion that the fresh mechanical departure of a few years since had indirectly been the means of causing much loss to German millers, inasmuch as many persons had rushed to reconstruct their mills with insufficient means. Now what had happened? After the heavy costs of refitting had been met, the miller had found himself without the necessary working capital, and in too many cases, the eventual result had been bankruptcy. The new methods had brought other disadvantages in their train. A door had been opened to excessive production, in that the new machines absorbed less power

than the old. He was inclined to believe that the difference in productive capacity between two mills of equal capacity—nay, he might almost say, of equal horse power, the one being on the old and the other on the modern system—might be reckoned at from 33 to 50 per cent. in favor of the latter. Again it must not be forgotten that while production increased, the outlets for their products had been most seriously narrowed. Whereas formerly the German millers had controlled the markets of Norway, Sweden and Holland, as well as to a lesser extent those of Belgium and England, they could now only find customers in Norway and Sweden for some of the coarser milling products used in preparing the black bread consumed by the peasantry of those lands.

The effect of the recent changes in the German tariff system must not be overlooked. It could not be denied that German had been placed by that measure at a disadvantage with their competitors abroad. It was true that the increased import dues on grain had been supplemented by an adequate duty on flour, and that by this means the market had been kept free from being flooded with American and Austro-Hungarian flour. On the other hand bran paid no duty, and in consequence of this many mills had suffered severely. Still it must be remembered that the inconveniences to which he had referred were, after all, inevitable in a time of economical revolution, such as they had been undergoing. To look at the bright side, he felt that as regarded the mechanical conditions, the mills of Germany were quite on a level with those of any other country, and that, given raw material of equal quality, they were capable of competing with the best Hungarian mills in the manufacture of flour. It was precisely in the supply of raw material that their weakness lay. Although Germany could raise quite enough wheat to feed her mills, yet the millers were obliged to look abroad if they wanted wheat to make sound, strong flour. Now this was owing to the fact that during the past ten or fifteen years German farmers had more and more cultivated a wheat of rich yield indeed, but of indifferent quality, being poor in gluten and altogether unsuited for the production of a flour possessed of any panificatory value. If the farmers persisted in growing this wheat it was for no want of warning. The German Millers' Association had been untiring in its efforts to convince the agriculturists that it would be to their own interest to meet the miller's needs by growing the most glutinous wheat that the climate would permit, and by thus removing the necessity for foreign importations. These well-meant efforts had all and each, however, been fruitless. He believed the time would come when the farmers would have cause to regret their present policy. Their ultimate support was the Berlin grain market, and if that support were withdrawn, where would they be then? The market required for the class of business known as "futures" a common and poor kind of wheat, which was likely to remain in stock and be a sort of shuttlecock for the battledores of speculators.

Some 12 years ago the delivery of the wheat known as Rivetts or English "Grannen-wheat" was sanctioned, and the result had been the permanent flooding of the market with this kind of grain. The mean quantity in permanent stock might be estimated at

40,000 tons, which could not be moved, because millers had come to know the worthlessness of its quality. It was probable that this situation would evenuate in some decisive measures on the part of the market committee. No doubt the fact that Berlin had not a single wheat mill was explicable by the difficulty of procuring good grain in that city. On the other hand, there were five mills occupied in rye milling, possessing a collective grinding capacity of 550 tons a day. Of course this enormous amount was far more than sufficient for the needs of Berlin, and as a matter of fact, those mills supplied a very large area, and the North might be said to control the rye flour market of South Germany.—*The Miller* (London.)

ITEMS OF INTEREST.

A METHOD of preventing the incrustation of boilers that is little used here, though quite common in Germany, is as follows: The feed water is forced through one of the usual feed contrivances into the steam dome in which it is mixed by a jet of steam entering concentrically, in order that it may, during the mixing, be cast violently against the cover of the dome. The effect of this movement is that all the water receives the full temperature of the surrounding steam. By this sudden heating air and carbonic acid are withdrawn from the water, and not only the carbonate of lime, but the sulphate of lime and magnesium are extracted, and the precipitate occasioned is periodically removed.

To ETCH your name on steel tools proceed as follows: Clean thoroughly of grease, and then spread a thin coat of beeswax, or paraffine, on it at the place where the name is to be. This must be as thin as possible. Then, with a sharp needle point, write through the wax to the steel. Paint this over with a mixture of nitric and muriatic acid, in the proportion of six to one respectively, and, when bubbles cease to rise, the work is done. Wash in strong soda water.

THE consumption of cotton seed oil has reached a surprising magnitude within the past few years. It stands to-day the great competitor of lard and tallow. In fact, its use in the arts has depressed the price of tallow to less than four cents a pound, which is not more than 60 per cent. of the average price of many years past. Enormous quantities of cotton seed oil are sold to European buyers as a stearine grease at about 2½ cents per pound in New York. Nearly all the soap manufactured in this country now is made from cotton seed oil. The oil is cheaper than tallow or grease even at their reduced prices, and hence, as the result of its introduction, the price of common soaps is 10 to 15 per cent. less than three years ago.

THERMOMETERS FOR WHITE HEAT.—There have recently been devised in Europe some new thermometers with platinum or porcelain bulbs by which very high temperatures, even those of a white heat, can be measured without having to resort to an expensive and troublesome pyrometer. The reading is taken in precisely the same way as at present with an ordinary thermometer, but the result is obtained by the pressure of air inclosed in the tube, which is exposed to the heat. This pressure acts directly on a vertical column of mercury. The bulb is

hermetically sealed and the instrument is unaffected by changes in the height of the barometer.

TO CURE DAMP CELLAR WALLS.—The following, it is said, will accomplish an admirable result: Boil two ounces of grease with two quarts of tar for nearly twenty minutes in an iron vessel, and having ready-pounded glass one pound, slaked lime two pounds, well dried in an iron pot, and sifted through a flour sieve. Add some of the lime to the tar and glass, to form a thin paste only sufficient to cover a square foot at a time, about an eighth of an inch thick.

PRESERVING FLOUR.—The following process of preserving flour is being carried on near Utrecht, Holland: The flour is placed in a large vat or chest and heated to a certain temperature by the use of steam pipes. It is then subjected to a hydraulic pressure, which reduces it to brick form. In water-tight packages flour thus preserved is said to keep fresh for years.

A FEW PROPOSITIONS FOR YOUR CONSIDERATION.

In order to add to our list of regular subscribers to the UNITED STATES MILLER, (established May, 1876,) we submit the following propositions, one of which we trust you will accept by return mail. The subscription price of the U. S. Miller alone is \$1.00 per year, but if you will send us your order within 30 days from receipt of this we will send you for one year

For \$1.00 "The U. S. Miller" and "Ropp's Calculator" or "Ogilvie's Handy Book" or "The Fireman's Guide" or "Fifty Complete Stories" or "High and Low Life in New York."

For \$1.50 "The U. S. Miller" and "Everybody's Paint Book" or "Webster's Practical Dictionary" or Potter and Huntington's "Millers' Exchange Tables."

For \$2.50 "The U. S. Miller" and "Moore's Universal Assistant and Complete Mechanic." (The price of the book alone is \$2.50.)

For \$3.00 "The U. S. Miller" and "Dr. Cowan's Science of a New Life," an invaluable work for all married people or those contemplating marriage. Fully illustrated.

For \$3.50 "The U. S. Miller" and "Gibson's Gradual Reduction Milling," the best work for the use of operative millers published.

For \$4.00 we will send you for one year all the following milling papers, "The U. S. Miller," "The American Miller," "The Northwestern Miller," "The Millstone," and the Corn Miller." If you are now a subscriber for any of these papers you will be credited for another year, or if preferred will send papers to any other address desired.

For \$5.00 we will send you the papers named in our four-dollars offer and "The Milling Engineer," a two-dollar paper.

Address all orders to

E. HARRISON CAWKER,

Publisher,

No. 124 Grand Ave., Milwaukee, Wis.

"Mill for Sale," "Mill for Rent," or "Machinery for Sale," short advertisements, \$1.00 each insertion.

NEW PUBLICATIONS.

"The Annual Report for 1885 of the Wisconsin Agricultural Experiment Station" is at hand, and forms a tasty volume of useful information to all directly interested in agricultural pursuits.

We acknowledge with thanks the receipt of a very handsomely bound copy of the proceedings of the Millers' National Association, from S. H. Seamans, Esq., secretary of the association.

"The Chronicle Fire Tables for 1886," published by The Chronicle Co. Lt. 33 Pine street, New York, have been received. The work has been compiled with great care. It is an invaluable compilation of fire statistics, and fills an important place in the library of the editor as well as the insurance man. The thinking public will find much food for thought in this handy volume.

Messrs. H. V. and H. W. Poor, No. 70 Wall street, New York, publishers of "Poor's Manual of Railroads," announce that they now have ready for delivery the first number of "Poor's Directory of Railway Officials and Railway Directors," a new work, which hereafter will be published annually in March, and which contains: (1) A list of the officials of every railroad in the United States, Canada, Mexico, Central America, South America, West Indies, Great Britain and Ireland. (2) A list of the officials of street railroads in the same countries. (3) A list of the directors of all railroad companies in North America, alphabetically arranged, with their addresses. (4) A list of the officials of organizations auxiliary to the railway system—such as fast freight lines and transportation companies; bridge and union depot companies; packet, steamboat and steamship companies; parlor, sleeping car, equipment, express and telegraph companies, etc., etc. (5) A list of the officials of industrial establishments dependent on the railway system—such as locomotive, car and bridge works, rail mills, etc., etc. (6) A list of the officials of the leading exchanges and commercial associations throughout the country. (7) A list of the leading contractors throughout the country whose specialty is the construction of railroads and works connected therewith. (8) A list of the officials of new railroads now in progress in the country. (9) An alphabetical list of the officials of all the American railways, with a convenient system of reference showing the lines with which they are connected.

BUFFALO ELEVATORS.

Following is a list of the elevators in Buffalo, N. Y., with their capacity:

Bus.	Bus.
Bennett..... 600,000	Niagara B..... 1,200,000
Brown..... 250,000	National Mills... 100,000
City..... 600,000	N. Y., L. E. & W.
C. J. Wells..... 350,000	R. R..... 650,000
Connecting Ter- minal R. R. Co., 1,200,000	Richmond..... 550,000
Coatsworth..... 40,000	Schreck..... 50,000
Erle Basin..... 200,000	Sternberg..... 150,000
Evans..... 250,000	Sturgis..... 300,000
Exchange..... 250,000	Swiftsure..... 150,000
Kellogg & McDou- gal..... 65,000	Tift..... 350,000
Lyons..... 100,000	Union..... 70,000
Marine..... 125,000	Watson..... 600,000
Niagara A..... 800,000	Wilkeson..... 250,000
	Wheeler..... 200,000
	Wm. Wells..... 200,000
Total.....	9,350,000

The British Baker for July says: "American millers must not forget the fact that all the brain and all the skill in the milling world are not west of the Atlantic. British millers have pluck and skill and intelligence, and are pushing on in flour milling. American wheat has its advantages, but English markets offer a fine selection of wheats, and when sufficient skill has been developed among our millers then the tug of war will come, and America will have all her energy and intellect fully occupied to keep in the front. Milling here is passing into larger and larger hands, and all that money can do is being done to make the battle rage with fury, for the old Anglo-Saxon blood can brook no defeat."

We will send the United States Miller, The American Miller, and The Northwestern Miller, The Millstone and The Corn Miller, for one year, to any address in the United States or Canada for \$4.00, or to any Foreign Country for £1. 3s.

STANDARD FLOUR SACKS.

The Chicago Flour-Dealers' Association held an adjourned meeting June 21. The special committee appointed at a previous meeting to select a standard for export flour sacks made a report, in which they say: "The committee wish it distinctly understood that this standard does not undertake to limit the miller who wishes to furnish a better sack, but fixes a limit below which, in quality, heft and strength, sacks cannot be used without liability of loss to millers. Half-barrel, 140-pound jute export sacks shall be from the best material, double stitched, not using less than an equivalent to 40x49 mangled or crape finished material, weighing not less than twelve ounces per yard of forty inches in width, or sixteen ounces for the complete bag. If from starched or sized material, the complete bag should not weigh less than seventeen ounces. Barrel, 280-pound jute export sacks shall be made from the best material, double stitched, not using less than an equivalent to 50x63-inch mangled or crape-finished material, weighing not less than eighteen ounces per yard of fifty inches in width or twenty-five ounces for the complete bag; if from starched or sized material, the complete bag weighing not less than 26½ ounces. Seamless jute sacks must be from the same heft and quality of material, etc., but require 4 per cent. less material and may weigh 4 per cent. less. Half-barrel, 140-pound cotton export sacks shall be double-stitched best drill or Osnaburg, free from starch or sizing, being of drill not less than an equivalent to 40x47 inches, or, if Osnaburg, not less than 37½x51½-inch material; the complete bag weighing not less than 9½ ounces." The report was adopted and ordered printed and sent to all millers and flour dealers.

Now is your time to send in your subscriptions for milling papers and other periodicals. Read our propositions on another page.

THE DIFFERENCE.

JULY.

Mr. Champignon—"In making out your invitations, my dear, don't forget Mr. Corncomer. He is an immensely successful and highly honorable member of the Board of Trade. Why, they say he cleared a cool hundred thousand last week."

Mrs. Champignon—"Certainly; we must have him by all means. We all like him so much."

DECEMBER.

Mrs. Champignon—"Isn't that young Corncomer coming up the street?"

Mr. Champignon—"Yes; don't recognize him. He lost fifty thousand on the Board last week. This speculating is nothing but gambling, anyway."—*Rambler.*

Gas Engine for Sale

One "OTTO" GAS ENGINE, 10 H-P., in very good condition, for sale cheap. Address

J. C. SUNDIN,
124 Grand Ave., Milwaukee.

Mills • For • Sale.

Short advertisements will be inserted under this head for One Dollar each insertion.

FOR SALE AT A BARGAIN.

A No. 1 four-run steam mill, located at Browning, Linn Co., Mo., on the C. B. & K. C. R. R. The machinery was furnished by the Nordyke & Marmon Co. Will sell one-half or all at a very low price, and on good terms. Reason for selling, I am not a practical miller. Address

JAMES H. WALKER, Browning, Mo.

FOR SALE.

A first-class 40-barrel water power stone and roller flour mill, situated within forty rods of side track of the C. M. & St. P. R. R. Country all settled up. Last year's grinding 20,000 bushels on custom work. Address

H. F. FISHER, Camp Douglas, Wis.

MILL FOR SALE.

Two runs of stone; one Garden City Purifier; one Victorsmutter; one separator; one corn sheller; two reels; one Lefel wheel 48-inch under ten-foot head, and the head can be increased to fifteen feet if required. Plenty of water all the year around. Dam is on solid rock bottom, only 4-6-12 high. Good wheat country. Nearest railroad, 5 miles. Nearest town, 2 miles. Twenty-nine acres land, house and stable for \$3,000. One thousand dollars cash; time to suit the buyer at 6 per cent. interest. Will sell half. Address

F. J. DWARSHAK, Festina, Iowa.

MILL FOR SALE.

The whole or half interest in a 50-barrel full roller mill, on account of death of partner. Good winter wheat section, climate and location. Will take one-third on the whole value in Western land. Address

"EAGLE ROLLER MILLS," Plymouth, Ill.
or U. S. MILLER, Milwaukee, Wis.

FLOURING MILL AND ELEVATOR FOR SALE.

All or one-half interest in a first-class 75-barrel steam flouring mill and elevator. All new and in good order. Located at Meriden, Jefferson Co., Kan., on the Atchison, Topeka & St. F. and the L. T. & S. W. Railroads; in the best wheat and corn growing country of the state. Building, heavy frame, 36x46, three stories, attic and basement, with stone engine room 22x34; all under iron roof. Capacity of elevator, 15,000 bushels; corn crib, dump and sheller. Side track to mill. Two sets 9x18 Allis Rolls; three burrs on wheat, one on corn; flour packer, scales, etc.; two Smith Purifiers; Barnard & Leas Separator; one 12-foot two-reel chest; one 16-foot four-reel chest; corn meal bolt; California Brush Finisher; one Western Corn Cleaner. Grain trade more than pays all running expenses. A splendid chance for a good miller. Exchange trade good. Mill cost over \$16,000. Will sell a 1 for \$12,000, half cash, or half interest for \$6,000, half cash, or, if not sold by July 1st, will be leased for a term of years to responsible parties.

J. O. PEEBLES, Sec'y,
MERIDEN MILL CO., Meriden, Kan.

FOR SALE CHEAP.

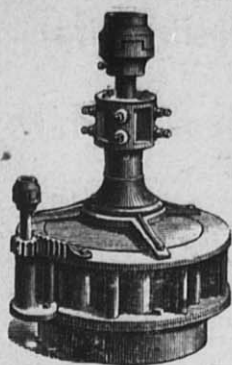
New all roller mill containing 11 pairs of rolls 9x12, 9x18 and 9x24, 6 reels, 3 purifiers, 1 centrifugal reel, 5 scalping reels, separator, smutter, corn sheller and 4½-foot feed stone. Water power mill driven by a 50-inch special Lefel wheel, 8-foot head and plenty of water the year around. Millhouse 35x50, 2½ stories; 11 feet high stone basement. The mill was built and started up new two years ago last June. It is situated in the best milling town and best wheat county in the State of Wisconsin. Only one mill to compete with in a radius of 10 to 25 miles; all a thick settled country around. The best of reasons for selling. For particulars call on or address

A. F. ORDWAY & SON, mill builders
and furnishers, Beaver Dam, Wis.

SITUATION WANTED.

Short advertisements will be inserted under this head for One Dollar each insertion.

WANTED—A practical Oatmeal Miller, one who understands his business and is willing to attend to it. Can receive additional information by calling on, or addressing CHARLES D. DANA, 10 State St., Chicago, Ills.



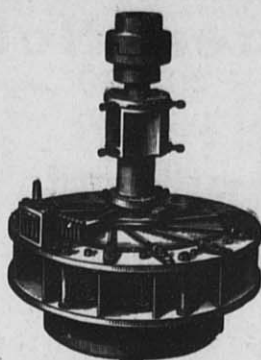
The "HOPEWELL" TURBINE Water Wheel

IS THE BEST.

For full particulars address

A. J. HOPEWELL,

EDINBURG, VA.



JAMES LEFFEL'S IMPROVED WATER WHEEL,

Fine New Pamphlet for 1885.

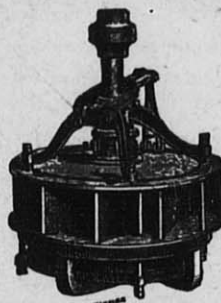
The "OLD RELIABLE" with Improvements, making it the Most Perfect Turbine now in use, comprising the Largest and the Smallest Wheels, under both the Highest and Lowest Heads in this country. Our new Pocket Wheel Book sent free. Address,

JAMES LEFFEL & CO., Springfield, Ohio,

and 110 Liberty St., New York City.

[Please mention this paper when you write to us.]

Improved + Walsh + Double + Turbine



This wheel has a perfect fitting cylinder gate and draft tube combined, and allows no water to escape when closed.

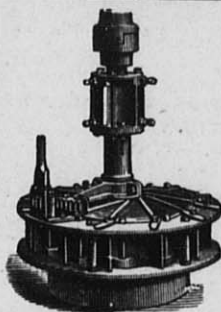
POWER GUARANTEED

equal to any wheel on the market using equal amount of water. Address for particulars,

B. H. & I. SANFORD,

Phoenix Iron Works,

Sheboygan Falls, Wis.



POOLE & HUNT'S Leffel Turbine Water Wheel

Made of best material and in best style of workmanship.

Machine Molded Mill Gearing

From 1 to 20 feet diameter, of any desired face or pitch, molded by our own SPECIAL MACHINERY. Shuffling, Pulleys, and Hangers, of the latest and most improved designs.

Mixers and General Outfit for Fertilizer Works.

Shipping Facilities the Best in all Directions.

POOLE & HUNT, Baltimore, Md.

N. B.—Special attention given to Heavy Gearing for Pulp and Paper Mills.

[Mention this paper when you write to us.]

STEEL CAR PUSHER

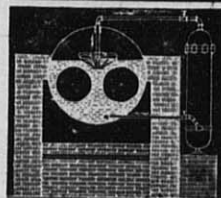
Made entirely of STEEL ONE MAN with it can easily move a loaded car. Will not slip on ice or grease.

Manufactured by

E. P. DWIGHT.

Dealer in Railroad Supplies, 407 Library St., Philadelphia, Pa.

[Please mention this paper when you write to us.]



VAN DUZEN'S Mechanical Boiler Cleaner

Takes out all mud and scale forming properties from the water of Steam Boilers, keeping it clean and free from all impurities. Send for circulars. Manufactured by

E. W. VAN DUZEN, Cincinnati, O.

Preserve your Copies of the
UNITED STATES MILLER

—IN AN—

ULLRICH BINDER

This binder is suitable for binding your copies of the UNITED STATES MILLER for two or more years, any required number can be taken out without disturbing its contents. Binders made for all Publications, for binding Music, etc.

ITS EQUAL CANNOT BE FOUND.

Send post paid for \$1.10. Address

UNITED STATES MILLER,
MILWAUKEE, WIS.

Did you hear us?

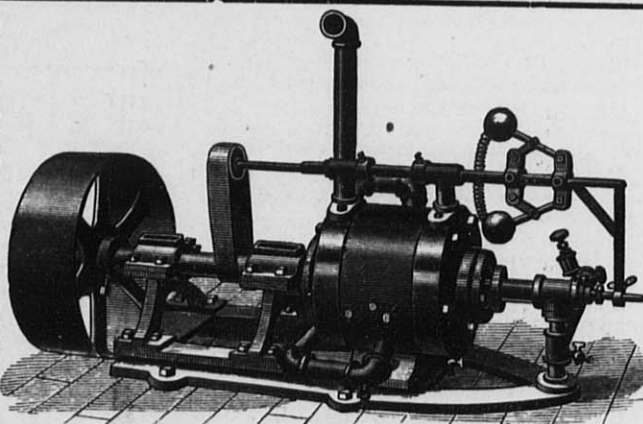
We told you over a year ago that our Engine was "on the market to stay." We now tell you it is the best Engine in the world, and is gaining favor every day and everywhere.

Highest Economy,
Closest Regulation,
Finest Automatic Cut-off,
Most Durable,

THE BEST in all respects and for all uses, and on prices we can double discount any engine maker in the U. S. Yes, it's a rotary, and we can prove all we claim.

If you want to know more about it send for Circulars and References.

[Please mention this paper.]



WADE & WARDELL,
Cadillac, Wexford Co. Michigan.

FROM 1-4 to 15,000 LBS. WEIGHT.

True to Pattern, sound, solid, free from blow-holes, and of unequalled strength. Stronger, and more durable than iron forgings in any position or for any service whatever.

40,000 CRANK SHAFTS and 30,000 GEAR WHEELS of this steel now running prove this.

CRANK SHAFTS and GEARING specialties. STEEL CASTINGS of every description

Send for Circulars and Prices to

CHESTER STEEL CASTINGS CO.

Works, CHESTER, PA.

[Mention this paper when you write to us.]

Office, 407 LIBRARY ST., PHILADELPHIA, PA.

JUST OUT.

The only thoroughly practical work on Modern Milling in the English language designed for the use of operative millers only.

LOUIS H. GIBSON'S

Gradual Reduction Milling.

Contains 429 pages, many cuts, and diagrams for a 100-barrel mill, 70-barrel mill, a 50-barrel mill, and a 500-barrel mill. Full of interesting and valuable matter. Publisher's price \$3.00. Will be furnished with the United States Miller for \$3.50, postage prepaid. Send in your orders at once to

E. HARRISON CAWKER,

Publisher UNITED STATES MILLER, Milwaukee, Wis.

GOODRICH PASSENGER STEAMERS

TWICE DAILY EACH WAY

Milwaukee & Chicago.

Fare to Chicago \$1 less than by railroad.

Chicago and Racine Line.

Leave Milwaukee.	FOR	Arrive at Milwaukee.
7:00 P. M.	Chicago	5:00 P. M.
*7:30 A. M.	Chicago	5:00 A. M.
7:00 P. M.	Racine	5:00 P. M.

Fare to Chicago Only \$2.

Round Trips, \$3.50, meals and berths included on first-class tickets.

Sure connections at Chicago with all morning trains for all points East, South and Southwest.

Sheboygan & Manitowoc Line.

Daily.*	Leave.	Arrive.
Milwaukee	7:00 a. m.	At Milwaukee 4:00 p. m.

Manistee & Ludington Line.

Daily, leave 7 P. M., except Sunday.

Saginaw & Bay City Line. Daily except Sundays.

Leave Milwaukee	At Milwaukee
7:00 p. m.	8:00 a. m.

Making close connections at Ludington with F & P. M. R. R. for Saginaw, Bay City, Detroit, and all points in Northern Michigan and all points East.

Pierport & Frankfort Line.

Leave Milwaukee daily at 7:00 P. M., except Sunday.

Kewaunee & Ahnapee Line.

Leave Milwaukee Tuesdays, Thursdays and Saturdays, at 7 A. M.

Menominee & Sturgeon Bay Line.

Tuesdays, Thursdays and Saturdays at 7 A. M.

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Leave Milwaukee Tuesdays, Thursdays and Saturdays at 7 A. M., touching at Oconto, Menominee, Nahma, Fayette, Depere, and making close connections with railroad at Escanaba for Ne-aunee, Ishpeming, Quinnesec, Norway, and all Lake Superior points.

*Mondays. †Sundays.

G. HURSON, Secretary and Agent.
THOS. FORBES, Passenger Agent.

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WINONA,
LA CROSSE,
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STILLWATER,
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EAU CLAIRE.

*ST. PAUL, MINNEAPOLIS, *

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NORTHERN PACIFIC RAILROAD and ST. PAUL,
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Passengers from all points on the CHICAGO & NORTHWESTERN R'Y, south of Green Bay and Fort Howard, connect with the

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They will find it

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The new line to Menominee is now completed, and opens to the public the shortest and best route to all points on the Michigan Peninsula.

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AT GREEN BAY with Chicago & North Western and Green Bay, Winona & St. Paul Railroads, for all points North and West.

C. F. DUTTON, General Supt.

The Milwaukee, Lake Shore and Western Railway.

This Railroad is now the acknowledged Fishing and Hunting Line of Wisconsin: Milwaukee to Sheboygan, Sheboygan Falls and Manitowoc.

Through the picturesque scenery of the Fox River Valley, and the cities of Kaukauna and Appleton, noted for their vast water power and manufacturing facilities.

Through Northern Wisconsin and the Michigan Peninsula, the most beautiful Region of Forests, Streams and Lakes in the Great Northwest.

Within its limits are located the best Fishing and Hunting Grounds in the country. The equable climate and the pure air of the Pine Forests, make it a most desirable Sanitarium, especially for sufferers from Hay Fever and Lung Diseases.

Good Hotels, Fleets of Pleasure Boats, and general facilities for comfort and pleasure at Lake Gogebic, the Eagle Waters and Pelican Lake.

Through the most wonderful Mineral Region of the United States; The Gogebic, Montreal and Penoque Iron Ranges. A new and rich field for the Prospector, Speculator and Capitalist. Picturesque scenery and interesting sights for the Tourist. The line terminates at ASHLAND, Lake Superior, well known as a desirable Summer Resort.

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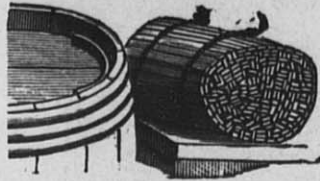
And Chicago and Winona.

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[Mention this paper when you write to us.]

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Get the Best; the Best is Cheapest. No Parch, Shriveling, Discoloration or other evidence of Artificial Drying.

The grain is dried at the rate of about 1,000 bushels per hour, the automatic arrangements and low temperature used insuring evenness and uniformity. The capacity, however, can be increased in proportion to power and space afforded, these latter being the only limit. In addition to drying evenly, the operations of the very dry air, peculiar to this machine, remove from the grain any slight odor from sweat or heat, and put it in condition to grade. The air used is a prepared air, and has all the varied degrees of low temperature necessary. Damp grain made as rules of inspection require, or as dry even, as old grain. Thus the BATES' DRYER is the most perfect as well as rapid dryer extant. It is beyond question The Champion Grain Dryer. Absolutely safe against fire.

New Corn can be made to grade immediately by the BATES' CHAMPION RAPID GRAIN DRYER. Corn of present crop, all over the country, is too damp to grade, and likely to be thus for months to come and can only be made to grade by artificial means. The BATES' DRYER is the only dryer that can dry the Grain in large quantities at trifling cost, naturally, and not show parch, shrivel, or other evidence of artificial drying; the drying by this method being precisely that accomplished by a natural dry atmosphere, only that the machine accomplishes in a very brief space of time what would ordinarily require months. It is not necessary by this process to dry out any more moisture than will bring the grain up to the desired grade.

Dryers for grains of all kinds, including Brewers' Grains, cotton seed, flax, and grass seeds, glucose refuse. Also for Phosphates, Starch, Glue, Fruit, Lumber, Shingles, and Veneering, Hides, Leather, Hair, Moss, Wool, etc.

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It has been practically demonstrated that a scale one-sixteenth of an inch thick on a Boiler will require twenty per cent. more fuel than a clean Boiler, while a scale one-fourth of an inch thick will require sixty per cent. more fuel. The scale is a non-conductor of heat, and its formation in Boilers is general throughout the United States, more especially in the lime and alkali districts, and enough attention has not been paid to keeping Boilers free from accumulations. The cost of fuel for steam purposes is an important item, and any system for economy in this direction should receive due consideration. I am manufacturing a **BOILER PURGER** which I claim is the best made: First.—That it will remove the scale from any Boiler, and, by its continued use, will keep it from forming. Second.—That it will not injure the Boiler, Valves or Cylinder, nor foam the water, nor injure the water for drinking purposes. It is easy to use, being in a liquid form, it can be put directly into the Boiler, through the Safety Valve, Whistle Valve, or by Force Pump, or into the Tank. Third.—That by its use, from fifteen to forty per cent. can be saved in the cost of fuel, besides the expense of putting in new flues every one or two years. Address, for prices, etc., to

H. P. GRAVES,

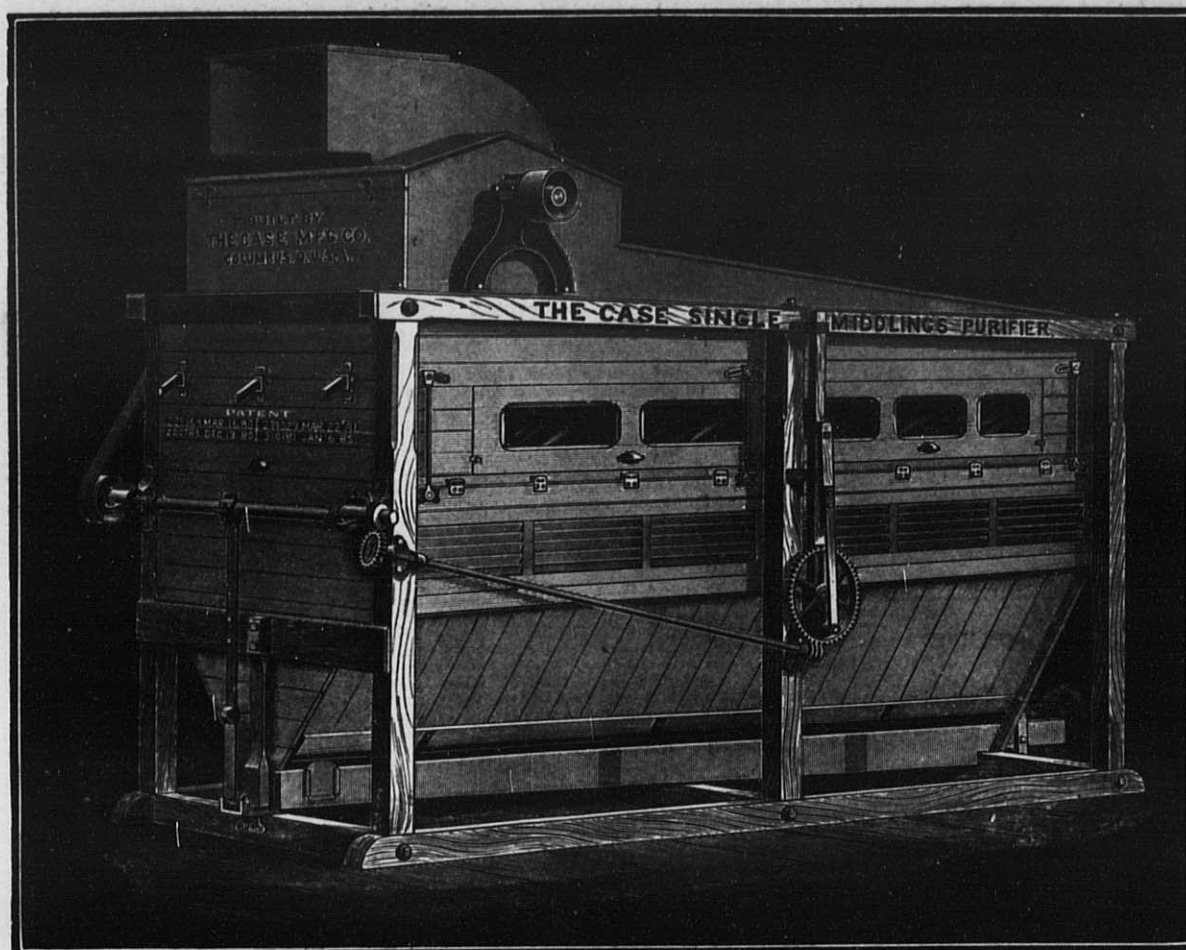
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THIS machine has some new and very valuable features, and we think we can justly say it is the **PRINCE PURIFIER OF THE WORLD.** It has an enclosed case or sides. It has the lightest Shaker made. It has no conveyors to wear the middlings. It has a complete aspirator at the tail. It has a double shaking spout for a cut-off. It has our perfect Automatic Feed. It has our unequalled Cloth Cleaner. It has brass eccentrics three inches long. It has the most perfect control of the blast. It is guaranteed to run five years without any attention except to oil the bearings, and is beyond any question the most perfect, practical, and complete machine made in the world. We will back this statement up by placing it on trial beside any other Purifier made, and if it does not prove all we claim, it may be removed. We know just what we are talking about, and will enter into public tests, and pay all expenses of same, if others can be induced to do so.

Our Purifiers have no "pockets" to fill up and interfere with the working of the dust collector. They have no subdivided compartments to catch dust and allow it to slide back on the riddle. They have no brush to wear out the cloth, and drop barrels of good middlings each day into the tailings and low grade stock, a waste which costs the millers of this country *hundreds of thousand of dollars annually, but they don't observe it.* They have no roller feed to choke off, or feed half the time only half the width of riddle, thus tailing off rich material and permitting the middlings to be poorly purified. Hundreds of thousands of dollars are lost each year by the miller through imperfect feed.

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During the past year we have settled all disputes with the Consolidated Middlings Purifier Company, so that the Purifiers now made by us are licensed under all patents, about one hundred in number, owned by that Company; besides being protected by our own patents, which embody several most valuable and important features, owned and controlled exclusively by ourselves.

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